

AMENDMENTS

Entry of the following amendments are requested:

In the Claims

Please cancel claims 1-8 and 15-19.

Under 37 C.F.R. § 1.121(c)(1)(i), please rewrite claims 9, 10, and 14 as follows:

C1  
Sub 1

9. (Amended) A method for biosynthetically producing commercially valuable compounds, said method comprising the steps of  
producing a fertile transgenic plant by introducing into plant cells a DNA construct comprising a promoter, a blocking sequence, and a structural gene coding for a biologically detrimental compound that is commercially valuable, said blocking sequence being flanked by a pair of directly repeated site-specific recombination sequences and wherein the structural gene becomes operably linked to the promoter only after the removal of said blocking sequence;

cross fertilizing said transgenic plant to produce transgenic plants that are homozygous for the gene encoding said biologically detrimental compound;

crossing said homozygous transgenic plant with a plant having a DNA sequence comprising a gene encoding a site-specific recombinase that recognizes said site-specific recombination sequences.

10. (Amended) A method for biosynthetically producing commercially valuable compounds, said method comprising the step of

C1  
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cross pollinating a maintainer plant line having a DNA sequence comprising a promoter, a blocking sequence, and a structural gene coding for a biologically detrimental compound that is commercially valuable, said blocking sequence being flanked by a pair of directly repeated site-specific recombination sequences, with an inducer plant line having a DNA sequence comprising a gene encoding a site-specific recombinase that recognizes said site-specific recombination sequences, wherein the structural gene becomes operably linked to the promoter only after the removal of said blocking sequence in the F1 progeny plants.

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C2

14. (Amended) A method for biosynthetically producing commercially valuable compounds, said method comprising the steps of

producing a maintainer plant line by introducing into plant cells a multi-functional DNA sequence comprising a promoter, a blocking sequence, and a structural gene coding for a biologically detrimental compound that is commercially valuable, said blocking sequence being flanked by a pair of directly repeated site-specific recombination sequences and wherein the structural gene becomes operably linked to the promoter only after the removal of said blocking sequence;

crossing said maintainer plant line, or the progeny of said maintainer plant line with an inducer plant line, said inducer plant line having a DNA sequence comprising a gene encoding a site-specific recombinase that recognizes said site-specific recombination sequences.

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Please add the following new claims:

20. (New) The method of claim 9 wherein the step of crossing said homozygous transgenic plant with a plant having a DNA sequence comprising a gene encoding a site-specific recombinase produces an F1 plant or seed that expresses the biologically detrimental compound.

21. (New) The method of claim 20, further comprising the step of extracting the compound from the plant or seed.

22. (New) The method of claim 9 wherein the promoter is a constitutive promoter.

23. (New) The method of claim 9 wherein the pair of directly repeated site-specific recombination sequences are FRT recombination sequences, and the gene encoding the site-specific recombinase encodes the FLP recombinase and is operably linked to a constitutive promoter.